REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 1 and 69 will have been amended and claims 74 and 75 will have been added. Accordingly, claims 1-75 will be pending with claims 1, 43 and 61 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner rejected claims 1-12, 14-71 and 73 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Traversal of Rejection Under 35 U.S.C. § 102

Applicant traverses the rejection of claims 1, 2, 4-6, 20-23, 30, 31, 35-42 and 71 under 35 U.S.C. § 102(a), (b) as being anticipated by GB 2 376 217 to ISHIDA.

The Examiner asserted that this document discloses all the features recited in these claims including the recited base pitches. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a straight circumferential groove arranged in a central area of the tread, each of the grooves being

continuously curved and running generally diagonally into the central area of the tread, each of the grooves extending to, *but not beyond*, the circumferential groove; the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset, as recited in amended independent claim 1.

Applicant acknowledges that GB '217 discloses a tire having diagonal grooves 5 which extend from a center area of the tread to the tread edges. However, it is clear from Fig. 1 that the grooves 5 have straight sections in areas X2 of the tread and <u>are not continuously curved</u>. Applicant also respectfully disagrees with the Examiner that GB '217 discloses, or even suggests, at least two base pitches wherein one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove. Applicant notes that while it is true that page 10, lines 23-25 states that the grooves 5 can be formed at variable pitches, it is not apparent that GB '217 can be read to disclose or suggest at least two base pitches wherein one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of GB '217.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claim 1.

Moreover, Applicant submits that dependent claims 2, 4-6, 20-23, 31, 35-42 and 71 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of GB '217 discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20; that each of the base pitches comprises at least two profile structures as recited in claim 21; that some of the base pitches have two profile structures as recited in claim 23; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 31; that

each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; and that each of the at least two base pitches is defined by at least two profile structures, at least one cross-groove, and only one of the continuously curved grooves as recited in claim 71.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102.

Traversal of Rejection Under 35 U.S.C. § 102/103

Applicant traverses the rejection of claims 1-10, 16, 17, 19-24, 30, 35-47, 53, 54, 56-62, 65-68, 70 and 73 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over EP 0 970 822.

The Examiner asserted that this document discloses or suggest all the features recited in these claims including the recited base pitches. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses, Applicant submits that this document fails to disclose, or even suggest: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a straight circumferential groove arranged in a central area of the tread, each of the grooves being *continuously curved* and running generally diagonally into the central area of the tread, each of the grooves extending to, *but not beyond*, the circumferential groove; the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and *blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset*, as recited in amended independent claim 1; inter alia, a tread comprising a circumference, profile structures,

circumferential grooves arranged on opposite sides of a center of the tread, a central circumferential groove, grooves which cross the circumferential grooves and extend to, but not beyond, the central circumferential groove, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, each of the grooves being continuously curved, crossing one of the circumferential grooves, extending to a tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures, and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as recited in independent claim 43; and inter alia, a vehicle pneumatic tire, comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, and each of the grooves *being* continuously curved, extending to, but not beyond, the central circumferential groove, and having greater curvature in the central area than in an area of the tread edges, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, and the base pitches comprising first base pitches and second base pitches,

wherein the first and second base pitches have different circumferential lengths, as recited in independent claim 61.

Applicant acknowledges that EP '822 discloses a tire having diagonal grooves 2b/3b which apparently extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2). However, it is not apparent from a fair review of the disclosure of this document that EP '822 discloses, or even suggests, at least two of the base pitches having different circumferential lengths in combination with *one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove*, and *blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset* (claim 1). Applicant notes , for example, that Fig. 2 of EP '822 shows the blocks 2a as being circumferentially aligned and not circumferentially offset.

Additionally, it is not apparent from a fair review of the disclosure of this document that EP '822 discloses, or even suggests at least two of the base pitches having *different* circumferential lengths, *one of the at least two base pitches comprising at least two profile structures and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves* (claim 43). Indeed, these features have not been shown to be disclosed by the embodiment shown in Fig. 2.

Finally, it is not apparent from a fair review of the disclosure of this document that EP '822 discloses, or even suggests each base pitch having one of the V-shaped grooves

and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches having different circumferential lengths (claim 61). Applicant notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of EP' 822.

Because the applied document fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that any proper reading of this document fails to render unpatentable the combination of features recited in at least independent claims 1, 43 and 61.

Moreover, Applicant submits that dependent claims 2-10, 16, 17, 19-24, 30, 35-47, 53, 54, 56-62, 65-68, 70 and 73 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of EP '822 discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and

the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the at least one profile structure in the one of the at least two base pitches and the at least two profile structures in the another of the at least two base pitches are arranged with different specific sequences as recited in claim 7; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 8; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 16; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 17; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20; that each of the base pitches

comprises at least two profile structures as recited in claim 21; that each of the base pitches comprises the same number of profile structures as recited in claim 22; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as

recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 44; that the one of the at least two base pitches comprises at least two profile structures having different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 45; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 53; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 54; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 56; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 57; that each of the base pitches comprises at least two profile structures as recited in claim 58; that each of the base pitches comprises the same number of profile structures as recited in claim 59; a method of making the tire of claim 43 wherein the method comprises

forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60; that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62; that the tire may further comprise first and second circumferential grooves arranged on opposite sides of the central circumferential groove and a plurality of pocket grooves opening out at the first and second circumferential grooves as recited in claim 65; that the tire further comprises additional circumferential grooves and blocks having different circumferential lengths arranged between the central circumferential groove and each of the additional circumferential grooves, wherein the blocks and the profile structures arranged on one side of the central circumferential groove are circumferentially non-aligned relative to the blocks and the profile structures arranged on the other side of the central circumferential groove as recited in claim 66; that adjacent base pitches have different circumferential lengths and each profile structure in each of the adjacent base pitches has a different circumferential length as recited in claim 67; that the pitch sequence comprises a first base pitch utilizing three profile structures, a second base pitch utilizing two profile structures, a third base pitch utilizing two profile structures, and a fourth base pitch utilizing two profile structures,

and further comprising at least one of the two profile structures of the fourth base pitch having different circumferential lengths, the two profile structures of the third base pitch having different circumferential lengths, the two profile structures of the second base pitch having different circumferential lengths, and the three profile structures of the first base pitch having different circumferential lengths as recited in claim 68; that the tire further comprises the blocks having different circumferential lengths, the profile structures being arranged between each of the circumferential grooves and each of the tread edges, the cross-grooves separating the profile structures and extending to each tread edge, the profile structures, the grooves and the cross-grooves arranged over an entire circumferential surface of the tread, the at least two base pitches being adjacent base pitches having different circumferential lengths, each profile structure of one of the adjacent base pitches having a different circumferential length and each profile structure of another of the adjacent base pitches having a different circumferential length as recited in claim 70; and that each of the base pitches is defined by at least two profile structures, at least one cross-groove, and only one of the continuously curved grooves as recited in claim 73.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b)/103.

Traversal of Rejections Under 35 U.S.C. § 103(a)

Over EP '822 with EP '436

Applicant respectfully traverses the rejection of claims 25-29, 63 and 64 under 35

U.S.C. § 103(a) as unpatentable over EP '822 in view of EP '436.

The Examiner acknowledged that EP '822 lacks, among other things, the recited features of these dependent claims. However, the Examiner asserted that these features are taught by EP '436 and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggest, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a straight circumferential groove arranged in a central area of the tread, each of the grooves being *continuously curved* and running generally diagonally into the central area of the tread, each of the grooves extending to, *but not beyond*, the circumferential groove; the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and *blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset*, as recited in amended independent claim 1; and inter alia, a vehicle pneumatic tire, comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves

extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, and each of the grooves *being* continuously curved, extending to, but not beyond, the central circumferential groove, and having greater curvature in the central area than in an area of the tread edges, the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, as recited in independent claim 61.

As explained above, while it is apparent that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2), it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, at least two of the base pitches having different circumferential lengths in combination with *one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove*, and *blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset* (claim 1). Applicant notes , for example, that Fig. 2 of EP '822 shows the blocks 2a as being circumferentially aligned and not circumferentially offset.

It is also clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, that each base pitch has one groove and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove (claim 61). Applicant notes that the tread in Fig. 2 of EP '822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

With regard to EP '436, Applicant acknowledges that EP '436 discloses a tire having different base pitch lengths (see Fig. 1). However, because EP '436 fails to discloses or suggests any diagonal grooves and/or grooves having a greater curvature in the central area than in an area of each tread edge, there is no basis or rational for combining the teachings of EP '436 with those of EP '822. As such, this document cannot cure the deficiencies of EP '822.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least independent claims 1 and 61. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of EP '822

and EP '436 can render unpatentable the combination of features recited in at least independent claims 1 and 61.

Finally, Applicant submits that dependent claims 25-29, 63 and 64 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of EP '822 and EP '436 discloses or suggests, in combination: that each of the base pitches has four profile structures as recited in claim 25; that each of the base pitches has five profile structures as recited in claim 26; that one of the profile structures is the shortest of the profile structures in circumferential length and wherein one of the profile structures is the longest of the profile structures in circumferential length, and wherein a ratio of the circumferential length of the shortest profile structure to the circumferential length of the longest profile structure is between approximately 1 : 1.2 and approximately 1 : 2 as recited in claim 27; that the ratio is between approximately 1 : 1.2 and approximately 1 : 1.6 as recited in claim 28; that the ratio is between approximately 1 : 1.6 and approximately 1 : 2 as recited in claim 29; that the base pitches further comprises third base pitches, wherein the first, second and third base pitches have different circumferential lengths as recited in claim 63; and that each of the third base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 64.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

Over GB '217 with EP '822, EP '436, JP '610, and DE '061

Applicant respectfully traverses the rejection of claims 1-12, 14-71 and 73 under 35 U.S.C. § 103(a) as unpatentable over GB '217 in view of at least one of EP '822, EP '436, JP '610, and DE '061 (incorrectly indicated as DE 101 45 601).

The Examiner acknowledges that GB '217 lacks, among other things, the recited continuously curved grooves and the different base pitch lengths that reduce noise. However, the Examiner asserted that these features are taught by each of EP '822, EP '436, JP '610 and DE '061, and that it would have been obvious to one of ordinary skill in the art to combine the teachings of these documents. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what these documents disclose or suggests, Applicant submits that no proper combination of these documents discloses or suggests: inter alia, a tire comprising a tread comprising a circumference, profile structures, grooves and a straight circumferential groove arranged in a central area of the tread, each of the grooves being *continuously curved* and running generally diagonally into the central area of the tread, each of the grooves extending to, *but not beyond*, the circumferential groove; the grooves and the profile structures forming base pitches, the base pitches being circumferentially arranged on opposite sides of the circumferential groove and having a pitch sequence arranged to minimize tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and *blocks arranged on opposite sides*

of the straight circumferential groove being circumferentially offset, as recited in amended independent claim 1; inter alia, a tread comprising a circumference, profile structures, circumferential grooves arranged on opposite sides of a center of the tread, a central circumferential groove, grooves which cross the circumferential grooves and extend to, but not beyond, the central circumferential groove, cross-grooves which extend to the circumferential grooves, and blocks arranged between the center of the tread and the circumferential grooves, each of the grooves being continuously curved, crossing one of the circumferential grooves, extending to a tread edge and having greater curvature in the central area than in an area of each tread edge, the grooves and the profile structures forming base pitches, the base pitches being sequentially arranged over an entire circumferential area and having a pitch sequence which minimizes tire noise, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures, and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves, as recited in independent claim 43; and inter alia, a vehicle pneumatic tire, comprising a tread comprising a central area having a central circumferential groove, profile structures arranged on opposite sides of the central circumferential groove, tread edges, and grooves, the grooves extending from the central circumferential groove to each of the tread edges, whereby oppositely extending grooves form V-shaped grooves which extend to the tread edges, and each of the grooves *being* continuously curved, extending to, but not beyond, the central circumferential groove, and having greater curvature in the central area than in an area of the tread edges, the base pitches being sequentially arranged over an

entire circumferential surface of the tread and having a pitch sequence which minimize tire noise, and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, as recited in independent claim 61.

As explained above, Applicant acknowledges that GB '217 discloses a tire having diagonal grooves 5 which extend from a center area of the tread to the tread edges. However, it is clear from Fig. 1 that the grooves 5 have straight sections in areas X2 of the tread and are not continuously curved. Applicant also respectfully disagrees that the Examiner has GB '217 has been shown to disclose, or even suggest, at least two base pitches wherein one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove. Applicant notes that while it is true that page 10, lines 23-25 states that the grooves 5 can be formed at variable pitches, it is not apparent that GB '217 can be read to disclose or suggest at least two base pitches wherein one of the at least two base pitches comprising at least one profile structure, and another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove.

As explained above, while it is apparent that EP '822 discloses a tire having diagonal grooves 2b/3b which extend from a center area of the tread to the tread edges and base pitches having different circumferential lengths (see Fig. 2), it is clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, at least two of the base pitches having different circumferential lengths in combination with

one of the at least two base pitches comprising at least one profile structure, another of the at least two base pitches comprising at least two profile structures separated by at least one cross-groove, and *blocks arranged on opposite sides of the straight circumferential groove being circumferentially offset* (claim 1). Applicant notes , for example, that Fig. 2 of EP '822 shows the blocks 2a as being circumferentially aligned and not circumferentially offset.

It is also clear from a fair review of the disclosure of this document that EP '822 does not disclose, or even suggest, at least two of the base pitches having different circumferential lengths, one of the at least two base pitches comprising at least two profile structures, and another of the at least two base pitches comprising at least three profile structures separated by at least two cross-grooves (claim 43) and at least two profile structures having different circumferential lengths in combination with the base pitches being sequentially arranged over an entire circumferential surface of the tread and having a pitch sequence which minimize tire noise and the base pitches comprising first base pitches and second base pitches, wherein the first and second base pitches have different circumferential lengths, the first base pitches comprising at least one profile structure, and the second base pitches comprising at least two profile structures separated by at least one cross-groove (claim 61). Applicant notes that the tread in Fig. 2 of EP 822 merely shows two apparently different pitch lengths with two profile structures of each pitch length having the same circumferential length.

With regard to EP '436, Applicant acknowledges that EP '436 discloses a tire having different base pitch lengths (see Fig. 1). However, it is not apparent that EP '436 discloses

or suggests diagonal grooves and/or grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document cannot cure the deficiencies of and/or is not properly combinable with GB '217 and EP '822.

With regard to JP '610, Applicant acknowledges that JP '610 discloses a tire having different base pitch lengths (see Figs. 1 and 4). However, it is not apparent that JP '610 discloses or suggests the recited diagonal grooves and/or the recited grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document cannot cure the deficiencies of and/or is not properly combinable with GB '217, EP '822 and EP '436.

With regard to DE '061, Applicant acknowledges that DE '061 discloses a tire having different base pitch lengths (see Figs. 1-3). However, it is not apparent that DE '061 discloses or suggests even the recited diagonal grooves and/or the recited grooves having a greater curvature in the central area than in an area of each tread edge. Thus, this document cannot cure the deficiencies of and/or is not properly combinable with GB '217, EP '822, EP '436 and JP '610.

Thus, Applicant submits that the above-noted documents fail to disclose or suggest the features recited in at least amended independent claims 1, 43 and 61. Because no proper combination of the above-noted documents discloses or suggests at least the above-noted features of the instant invention, Applicant submits that no proper combination of GB '217, EP '822, EP '436, JP '610 and DE '061 can render unpatentable the combination of features recited in at least independent claims 1, 43 and 61.

Furthermore, Applicant submits that there is no rationale disclosed or suggested in

the art to modify any of the applied documents in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the rational for modifying these documents, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claims 1, 43 and 61 is not rendered obvious by any reasonable inspection of this disclosure.

Finally, Applicant submits that dependent claims 2-12, 14-71 and 73 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper combination of GB '217, EP '822, EP '436, JP '610 and DE '061 discloses or suggests, in combination: that the vehicle tire is a pneumatic radial tire as recited in claim 2; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 3; that the profile structures form an outer surface of the tread as recited in claim 4; that the base pitches are arranged according to a specific sequence as recited in claim 5; that the profile structures in the another of the at least two base pitches are arranged according to a specific sequence as recited in claim 6; that the at least one profile structure in the one of the at least two base pitches and the at least two profile structures in the another of the at least two base pitches are arranged with different specific sequences as recited in claim 7; that the one of the at least two base pitches comprises at least two profile structures having

different circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 8; that the one of the at least two base pitches comprises first and second sequentially arranged profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth sequentially arranged profile structures subdivided by at least two cross-grooves as recited in claim 9; that the first and second profile structures have different circumferential lengths as recited in claim 10; that the first and second profile structures have the same circumferential lengths as recited claim 11; that the first and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 12; that the second and at least one of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 13; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 14; that the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 15; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 16; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 17; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 18; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 19; that each of the base pitches comprises between two profile structures and five profile structures as recited in claim 20;

that each of the base pitches comprises at least two profile structures as recited in claim 21; that each of the base pitches comprises the same number of profile structures as recited in claim 22; that some of the base pitches have two profile structures as recited in claim 23; that each of the base pitches has three profile structures as recited in claim 24; that each of the base pitches has four profile structures as recited in claim 25; that each of the base pitches has five profile structures as recited in claim 26; that one of the profile structures is the shortest of the profile structures in circumferential length and wherein one of the profile structures is the longest of the profile structures in circumferential length, and wherein a ratio of the circumferential length of the shortest profile structure to the circumferential length of the longest profile structure is between approximately 1 : 1.2 and approximately 1 : 2 as recited in claim 27; that the ratio is between approximately 1 : 1.2 and approximately 1 : 1.6 as recited in claim 28; that the ratio is between approximately 1 : 1.6 and approximately 1 : 2 as recited in claim 29; that the at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 30; that each at least one cross-groove is narrower in width than at least one of the grooves as recited in claim 31; that the one of the at least two base pitches has only first and second profile structures subdivided by a first cross-groove and the another of the at least two base pitches has only third, fourth and fifth profile structures subdivided by two second cross-grooves as recited in claim 32; that a width of the first cross-groove is different than a width of at least one of the two second cross-grooves as recited in claim 33; that a width of the first cross-groove is different than a width of each of the two second cross-grooves as recited in claim 34; that each of the profile structures is arranged in a circumferential row as recited in claim 35; that

the circumferential row is arranged in a shoulder of the tread as recited in claim 36; that the tread further comprises at least one tread edge and wherein the grooves extend from the central area to the at least one tread edge as recited in claim 37; that the grooves have greater curvature in the central area than in an area of the at least one tread edge as recited in claim 38; that the grooves are oriented at a first angle, relative to a circumferential direction, in the central area and at a second angle, relative to the circumferential direction, in an area of the at least one tread edge, and wherein the first angle is different from the second angle as recited in claim 39; that the first angle is less than the second angle as recited in claim 40; that the first angle is less approximately 45 degrees and the second angle is greater than approximately 45 degrees as recited in claim 41; a method of making the tire of claim 1 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence to minimize tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 42; that the one of the at least two base pitches comprises at least two profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures subdivided by at least two cross-grooves and the one of the at least two base pitches and the another of the at least two base pitches are arranged adjacent to each other as recited in claim 44; that the one of the at least two base pitches comprises at least two profile structures having different

circumferential lengths subdivided by at least one cross-groove and the another of the at least two base pitches comprises at least three profile structures having different circumferential lengths subdivided by at least two cross-grooves as recited in claim 45; that the one of the at least two base pitches comprises first and second profile structures subdivided by at least one cross-groove and the another of the at least two base pitches comprises third, fourth and fifth profile structures subdivided by at least two cross-grooves as recited in claim 46; that the first and second profile structures have different circumferential lengths as recited in claim 47; that the first and second profile structures have the same circumferential lengths as recited in claim 48; that the first and at least one of third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 49; that the second and at least one of the third, fourth and fifth profile structures are arranged in sequence after the first profile structure and have the same circumferential lengths as recited in claim 50; that at least two of the third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 51; that the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 52; that the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 53; that the third, fourth and fifth profile structures have different circumferential lengths as recited in claim 54; that at least two of the first, second, third, fourth and fifth profile structures have the same circumferential lengths as recited in claim 55; that at least two of the first, second, third, fourth and fifth profile structures have different circumferential lengths as recited in claim 56; that each of the base pitches comprises between two profile structures and five profile structures as

recited in claim 57; that each of the base pitches comprises at least two profile structures as recited in claim 58; that each of the base pitches comprises the same number of profile structures as recited in claim 59; a method of making the tire of claim 43 wherein the method comprises forming the tread with the profile structures and the grooves, arranging the base pitches sequentially over an entire circumferential area in a pitch sequence that minimizes tire noise, forming at least two of the base pitches with different circumferential lengths, providing one of the at least two base pitches with at least one profile structure, and providing another of the at least two base pitches with at least two profile structures separated by at least one cross-groove as recited in claim 60; that each of the first base pitches comprises at least two profile structures subdivided by at least one cross-groove and wherein each of the second base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 62; that the base pitches further comprises third base pitches, wherein the first, second and third base pitches have different circumferential lengths as recited in claim 63; that each of the third base pitches comprises at least three profile structures subdivided by at least two cross-grooves as recited in claim 64; that the tire may further comprise first and second circumferential grooves arranged on opposite sides of the central circumferential groove and a plurality of pocket grooves opening out at the first and second circumferential grooves as recited in claim 65; that the tire further comprises additional circumferential grooves and blocks having different circumferential lengths arranged between the central circumferential groove and each of the additional circumferential grooves, wherein the blocks and the profile structures arranged on one side of the central circumferential groove are

circumferentially non-aligned relative to the blocks and the profile structures arranged on the other side of the central circumferential groove as recited in claim 66; that adjacent base pitches have different circumferential lengths and each profile structure in each of the adjacent base pitches has a different circumferential length as recited in claim 67; that the pitch sequence comprises a first base pitch utilizing three profile structures, a second base pitch utilizing two profile structures, a third base pitch utilizing two profile structures, and a fourth base pitch utilizing two profile structures, and further comprising at least one of the two profile structures of the fourth base pitch having different circumferential lengths, the two profile structures of the third base pitch having different circumferential lengths, the two profile structures of the second base pitch having different circumferential lengths, and the three profile structures of the first base pitch having different circumferential lengths as recited in claim 68; that the tire further comprises additional circumferential grooves arranged on opposite sides of the central circumferential groove, the tread having tread edges, the central area having blocks of different circumferential lengths, the profile structures being arranged between each of the additional circumferential grooves and each of the tread edges, the grooves being curved grooves extending from the center area to each of the tread edges, cross-grooves separating the profile structures and extending from each circumferential groove to each tread edge, each of the curved grooves having greater curvature in the central area than in an area of the tread edges, the profile structures, the curved grooves and the cross-grooves defining blocks sequentially arranged over an entire circumferential surface of the tread, adjacent base pitches having different circumferential lengths, at least one of the profile structures of one of the adjacent base

pitches having a different circumferential length than at least one of the profile structures of another of the adjacent base pitches, at least one of the profile structures of one of the adjacent base pitches having a different circumferential length than at least another of the profile structures of the one of the adjacent base pitches, and at least one of the profile structures of the another of the adjacent base pitches having a same circumferential length as at least another of the profile structures of the another of the adjacent base pitches as recited in claim 69; and that the tire further comprises the blocks having different circumferential lengths, the profile structures being arranged between each of the circumferential grooves and each of the tread edges, the cross-grooves separating the profile structures and extending to each tread edge, the profile structures, the grooves and the cross-grooves arranged over an entire circumferential surface of the tread, the at least two base pitches being adjacent base pitches having different circumferential lengths, each profile structure of one of the adjacent base pitches having a different circumferential length and each profile structure of another of the adjacent base pitches having a different circumferential length as recited in claim 70; that each of the at least two base pitches is defined by at least two profile structures, at least one cross-groove, and only one of the continuously curved grooves as recited in claim 71; and that each of the base pitches is defined by at least two profile structures, at least one cross-groove, and only one of the continuously curved grooves as recited in claim 73.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 103.

New Claims are also Allowable

Applicant submits that the new claims 74 and 75 are allowable over the applied art of record. Specifically, claims 74 and 75 depend from claims 43 and 61 which are believed to be allowable. Moreover, claims 74 and 75 recite a combination of features which are clearly not disclosed or suggested by the applied art of record. Accordingly, Applicant respectfully requests consideration of these claims and further requests that the above-noted claims be indicated as being allowable.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Authorization is hereby given to refund excess payments and charge any additional fee necessary to have this paper entered to Deposit Account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned attorney at the number listed below.

Respectfully submitted,
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